

REMARKS

Drawings

In his Final Rejection and in the Advisory Action the Examiner has objected the drawings under 37 CFR 1.83(a). Applicant points out that Claims 4 and 7 claim two different embodiments of the present invention. In the first embodiment the system controller 100 serves as the determining unit of claim 4, and in the second embodiment the system controller serves as the table producing unit of claim 7. It is therefore believed that 37 CFR 1.83(a) is satisfied.

Claims 1-3

In section 4 of the Final Rejection and in the Advisory Action, the Examiner has stated that the audio title information management table disclosed in Heo corresponds to the aggregate attribute information of the present application. Applicant respectfully disagrees.

The audio title information management table of Heo is claimed in claim 1 of Heo (column 26, lines 36 and following) and includes features such as quantization bits, sampling frequency, and the number of the channels. More specifically, Heo's audio title information management table corresponds to the table VTSM_AST_ATR in Fig. 11 or to the table VTS_AST_ATRT in FIG. 12 of Heo. The quantization bits (QUANTIZATION/DRC), the sampling frequency (FS), and the number of the channels (NUMBER OF AUDIO CHANNELS) are shown in the second line of both Figs. 11 and 12.

As shown in those Figures, the space allocated to the quantization bits is two bits long, the space allocated to the sampling frequency is two bits long, and the space

allocated to the number of audio channels is four bits long. As a consequence, each of the VTSM_AST_ATR (Fig. 11) and VTS_AST_ATRT (Fig. 12) indicates information for one title (VTS) only. It follows that the audio management table of Heo does not correspond to the aggregate attribute information of the present application. In fact, Heo's audio management table corresponds to the audio attribute information 10 recorded in each VTS 3 of Fig. 4 of the present application.

In his Advisory Action, the Examiner makes also reference to Heo, column 3, lines 25 and following, where reference to tables 1a, 1b, 2a and 2b is made. Those tables show that VTSM_AST_ATR and VTS_AST_ATRT are included in VTSI_MAT. From such tables it is also clear that the space occupied by VTSM_AST_ATR (4th line of Table 2A) and VTS_AST_ATRT (4th line of Table 2b) is very small when compared with VTSI_MAT, thus confirming the above conclusion that such elements comprise information relating to one title (VTS) only.

Therefore, the "audio title information management table" of Heo does not refer to information relating to a plurality of audio attribute information and only refers to a single VTS.

This is also confirmed by the fact that, in Heo's claim 1, the DVD audio disk comprises information areas, each storing an audio title information management table (see Heo, column 26, lines 39-40). It follows that the audio title information management table is not aggregated, because it is decentralized in each of the information areas.

In sharp contrast, in the embodiment of the present invention shown in Fig. 4, the

aggregate attribute information is included in an audio centralized information 13 in the control data 11 of the video manager 2 as seen in FIG. 6. The aggregate attribute information is an aggregation of the audio management information 10 (claimed as "unit attribute information") comprised in the control data 11 of each VTS 3. More specifically, the "aggregate attribute information" collectively records information having the same contents of the "unit attribute information." Such information is collectively recorded at a location where no aggregate audio information is recorded. In this connection, the Examiner's attention is directed to the modified language of amended claims 1, 4, 7, 10 and 13.

The "audio title information management table" of Heo corresponds to the "unit attribute information" recited in claim 1 of the present invention. The "unit attribute information" of claim 1 is for example disclosed on Fig. 4 of the present application, indicated as audio attribute information 10. Therefore, in the present invention: i) each attribute information is recorded in the control data 11 of each VTS 3 and ii) aggregate information, comprising attribute information of each VTS is collectively recorded at a location where no aggregate audio information is recorded, for example in the control data portion of the video manager. In other words, the information corresponding to the VTSM_AST_ATR and VTS_AST_ATRT of each VTS of Heo is collectively recorded in one area in the present information.

In the present invention, when the DVD contents are reproduced by means of a reproduction apparatus, the audio centralized information 13 in the video manager 2 is read out and stored in a memory within the controller of the reproduction apparatus. In this way, when audio information of different audio attributes is

successively reproduced (for example when reproducing the "Collection" Group such as Group-3 in Fig. 6), the audio attribute of the song to be reproduced next can be obtained in advance by referring to the audio attribute information in the audio centralized information 13. Therefore, even if the search or track jump to the next song (i.e., the pickup movement) is completed in a relatively short time period, the reproduction of the next song begins after the reproduction apparatus recognizes the attribute change and completes the necessary adaptation, such as the change of the sampling frequency, thereby enabling the correct reproduction of the initial part of the next song. These features and advantages are neither described nor suggested in Heo. As a consequence, claims 1-3 are not anticipated by Heo, because Heo fails to disclose or suggest the claimed "aggregate attribute information".

Claims 4-15

In section 10 of his Final Action, the Examiner has rejected claims 4-15 under 35 USC 102(e) as anticipated by Heo or alternatively under 35 USC 103(a) as unpatentable over Heo and further in view of either Yamamoto or Yoshio. However, independent claims 4, 7, 10, and 13 recite the presence of "aggregate attribute information". As already explained above, Heo does not disclose aggregate attribute information. As a consequence, independent claims 4, 7, 10, and 13 are not anticipated by Heo. Claims 5-6 depend directly or indirectly on claim 4; claims 8-9 depend directly or indirectly on claim 7; claims 11-12 depend directly or indirectly on claim 10; and claims 14-15 depend directly or indirectly on claim 13. Therefore, none of claims 4-15 is anticipated by Heo. Further, neither the combination between Heo and Yamamoto or Heo et Yoshio disclose the presence of aggregate attribute information, as recited in the independent claims 1, 4, 7, 10, and 13 of the present application. All other claims 6-7, 8-9, and 11-12 are directly or indirectly dependent

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on one of those claims. As a consequence, all claims 4-15 are patentable over Heo and Yamamoto or Heo and Yoshio.

English translation of the priority document

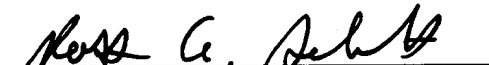
In his Advisory Action the Examiner has stated that no English translation of the priority document has been found. The Examiner is kindly informed that the letter filed by the Applicant in response to the Final Action has been sent by fax on April 2, 2001, and that on the same date a confirmation copy has been sent by mail, the latter containing an English translation of the priority document. However, for the Examiner's ease of reference, a further copy of the English translation of the priority document is attached to the present Preliminary Amendment.

For the reasons explained above, favorable reconsideration of the present application is respectfully requested.

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The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

Respectfully submitted,

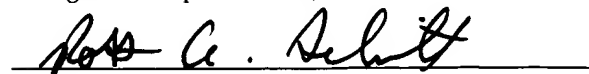

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I hereby certify that this paper and the documents referred to as enclosed herein are being deposited with the United States Postal Service on this date May 2, 2001 in an envelope addressed as "Express Mail Post Office to Addressee" Mailing Label Number ET242124046US addressed to the:

Assistant Commissioner For Patents
Box CPA
Washington, DC 20231

Ross A. Schmitt
(Name of Applicant, Assignee
or Registered Representative)


Signature

May 2, 2001
Date

APPENDIX

1. (Amended) An information storage medium comprising:
a plurality of unit audio information to be reproduced independently of each other;

aggregate audio information each including one or more of the unit audio information;

unit attribute information indicating attributes of the unit audio information included in the aggregate audio information; and

aggregate attribute information including information which has the same contents of the unit attribute information corresponding to the aggregate audio information recorded on the storage medium, collectively recorded at a location where no aggregate audio information is recorded.

4. (Amended) A reproduction apparatus for an information storage medium comprising: a plurality of unit audio information to be reproduced independently of each other; aggregate audio information each including one or more of the unit audio information; unit attribute information indicating attributes of the unit audio information included in the aggregate audio information; and aggregate attribute information including information which has the same contents of the unit attribute information corresponding to the aggregate audio information recorded on the storage medium, collectively recorded at a location where no aggregate audio information is recorded, the apparatus comprising:

a reading unit for reading information from the information storage medium;

a storage unit for storing the aggregate attribute information read by the reading unit;

an input unit for receiving, from a user, a reproduction instruction designating a plurality of unit audio information to be reproduced successively; and

a reproduction unit for setting the attribute for the reproduction based on the aggregate attribute information stored in the storage unit and for reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproduction unit comprising:

an obtaining unit for obtaining the attribute corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information stored in the storage unit;

a determining unit for determining whether or not the obtained attributes of the unit audio information to be successively reproduced are identical; and

an attribute change unit for starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if the determining unit determines that

the attributes are different.

7. (Amended) A reproduction apparatus for an information storage medium comprising: a plurality of unit audio information to be reproduced independently of each other; aggregate audio information each including one or more of the unit audio information; and unit attribute information indicating attributes of the unit audio information included in the aggregate audio information, the apparatus comprising:

- a reading unit for reading information from the information storage medium;

- a table producing unit for obtaining the unit attribute information corresponding to the aggregate audio information recorded on the storage medium from the reading unit and for producing an aggregate attribute information table aggregating the unit attribute information collectively;

- a storage unit for storing the aggregate attribute information table produced by the table producing unit;

- an input unit for receiving, from a user, a reproduction instruction designating a plurality of the unit audio information to be reproduced successively; and

- a reproduction unit for setting the attribute for the reproduction based on the aggregate attribute information table stored in the storage unit and for reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproduction unit comprising:

- an obtaining unit for obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information table stored in the storage unit;

- a determining unit for determining whether or not the obtained attributes of the unit audio information to be successively reproduced are identical; and

- an attribute change unit for starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if the determining unit determines that the attributes are different.

10. (Amended) A reproduction method of an information storage medium comprising: a plurality of unit audio information to be reproduced independently of each other; aggregate audio information each including one or more of the unit audio information; unit attribute information indicating attributes of the unit audio information included in the aggregate audio information; and aggregate attribute information including information which has the same contents of the unit attribute information corresponding to the aggregate audio information recorded on the storage medium, collectively recorded at a location where no aggregate audio

information is recorded, the method comprising the steps of:

- reading the aggregate attribute information from the information storage medium to store the read information into a storage unit;

- receiving, from a user, a reproduction instruction designating a plurality of unit audio information to be reproduced successively;

- setting the attribute for the reproduction based on the aggregate attribute information stored in the storage unit; and

- reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproducing step comprising the steps of:

 - obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information stored in the storage unit;

 - determining whether or not the attributes of the unit audio information to be reproduced successively are identical; and

 - starting an attribute setting of the unit audio information to be reproduced next immediately after the reproduction of the unit audio information currently reproduced, if it is determined in the determining step that the attributes are different.

13. (Amended) A reproduction method of an information storage medium comprising: a plurality of unit audio information to be reproduced independently of each other; aggregate audio information each including one or more of the unit audio information; and unit attribute information indicating attributes of the unit audio information included in the aggregate audio information, the apparatus comprising:

- reading the unit attribute information corresponding to the aggregate audio information recorded on the storage medium to produce an aggregate attribute information table aggregating the unit attribute information collectively;

- storing the aggregate attribute information table produced into a storage unit;

- receiving, from a user, a reproduction instruction designating a plurality of unit audio information to be reproduced successively;

- setting the attribute for the reproduction based on the aggregate attribute information table stored in the storage unit; and

- reproducing the unit audio information designated by the user in accordance with the attribute set, wherein said reproducing step comprising the steps of:

 - obtaining the attributes corresponding to each of the plurality of unit audio information designated by the user from the aggregate attribute information table stored in the storage unit;

 - determining whether or not the attributes of the unit audio information to be successively reproduced are identical; and

 - starting an attribute setting of the unit audio information to be reproduced

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next immediately after the reproduction of the unit audio information currently reproduced, if it is determined in the determining step that the attributes are different.